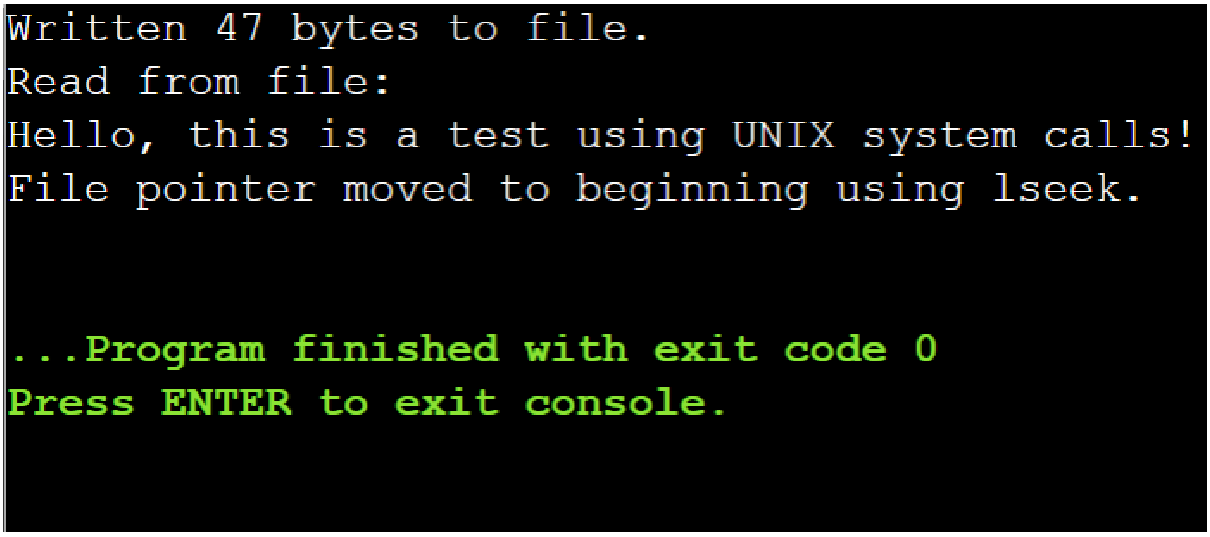
```
}

#include <stdio.h>
#include <fcntl.h>    // For open()
#include <unistd.h>   // For read(), write(), lseek(), close()
#include <string.h>
#include <stdlib.h>

int main() {
    int fd;
    char buffer[100];
    ssize_t bytesRead, bytesWritten;

    // 1. Create and open a file (O_CREAT | O_WRONLY)
    fd = open("example.txt", O_CREAT | O_WRONLY | O_TRUNC, 0644);
    if (fd < 0) {
        perror("Error opening file");
        exit(1);
    }

    // 2. Write to the file
    char *text = "Hello, this is a test using UNIX system calls!\n";
    bytesWritten = write(fd, text, strlen(text));
    if (bytesWritten < 0) {
        perror("Error writing to file");
        close(fd);
        exit(1);
    }
    printf("Written %zd bytes to file.\n", bytesWritten);
```

```
// 3. Close the file
close(fd);

// 4. Open the file for reading
fd = open("example.txt", O_RDONLY);
if (fd < 0) {
    perror("Error opening file for reading");
    exit(1);
}

// 5. Read from the file
bytesRead = read(fd, buffer, sizeof(buffer) - 1);
if (bytesRead < 0) {
    perror("Error reading file");
    close(fd);
    exit(1);
}

buffer[bytesRead] = '\0';  // Null terminate the string
printf("Read from file:\n%s", buffer);

// 6. Demonstrate lseek: move file pointer to beginning
if (lseek(fd, 0, SEEK_SET) == -1) {
    perror("Error with lseek");
    close(fd);
    exit(1);
}
printf("File pointer moved to beginning using lseek.\n");
```

```
    // 7. Close the file
    close(fd);

    return 0;
}
```



```
Written 47 bytes to file.
Read from file:
Hello, this is a test using UNIX system calls!
File pointer moved to beginning using lseek.


...Program finished with exit code 0
Press ENTER to exit console.
```